

**Remarks:**

**Status of the Claims**

Claims 1–4 and 6–10 were previously pending with claims 1 and 3 being independent. Claim 10 is currently amended and new claim 11 is presently added. Claims 1-4 and 6-11 are currently pending with claims 1 and 3 being independent.

In the Office Action dated August 6, 2008, claims 1–4 and 6–10 were rejected under 35 U.S.C. § 103 as being unpatentable over Wyatt (U.S. Patent No. 6,490,530), 42 USC 11023 (a), and Ishizaka et al. (U.S. Patent No. 5,077,010).

**The Rejections under 35 U.S.C. § 103**

***Claim 1***

Turning now to the rejections under 35 U.S.C. § 103, the Examiner asserts that independent claim 1 is unpatentable over Wyatt. The applicant respectfully disagrees.

Wyatt generally discloses aerosol cloud detection using scattered light from a laser beam. Wyatt does not disclose "...wherein the report comprises *an image* of the substance." (Emphasis added). As noted by the Examiner on page 3 of the Office Action, Wyatt discloses detector stations capable of measuring and classifying aerosol particles (col. 8, lines 34-44). Measuring and classifying does not teach a report comprising an image of the substance, as recited in claim 1. Furthermore, as noted by the Examiner, the "Background" section of Wyatt discloses a need for spectroscopic techniques (Col 3, lines 5-10). First, this passage simply discloses a need, and does not disclose specific spectroscopic techniques or how they may be utilized by the "detector stations" disclosed in Wyatt. Second, this passage does **not** disclose an image of the substance, nor a report comprising an image of the substance, as recited in claim 1.

Spectroscopy generally relates to the study of interaction between matter and radiation. "Spectroscopic techniques" can be techniques of studying, measuring, or observing matter and its interaction with radiation, and does not inherently require an

image of the substance nor inherently result in an image of the substance. Indeed, Col 3, lines 8-10 recite, "Such techniques would collect and process radiance from natural or preexisting sources." Collecting and processing radiance does not explicitly nor inherently teach "an image of the substance." As stated in the MPEP, "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference.'" Therefore, the vague reference to "spectroscopic techniques" in the "Background" section of Wyatt neither teaches nor implies a report comprising an image of the substance, as recited in claim 1.

Additionally, as noted by the Examiner on page 3 of the Office Action, Wyatt discloses that the CPU will collect and process such identification or classification results to determine other aerosol particle properties following the on-board CPU instructions (Col. 12, lines 20-25) and such information includes estimates of threat characteristics (Col. 14, lines 3-11). However, collecting and processing identification or classification results does not explicitly nor implicitly teach a report *comprising an image* of the substance, as recited in claim 1 of the present application.

### ***Claim 3***

As noted by the Examiner on page 5 of the Office Action, Wyatt discloses detector stations that are capable of performing a set of scattered light measurements by which the target aerosol particles are well classified and/or identified, one-at-a-time, at each locale where they are detected (Col. 5, lines 25-29). On the top of page 6 of the Office Action, the Examiner asserts that "this results in a magnified image." The Applicant respectfully disagrees.

Particles of a substance being classified or identified one-at-a-time does not teach nor imply a *magnified image* of the substance. Instead, as described in Col. 8, lines 46-51 of Wyatt, the sampled aerosol stream is diluted so that only a single particle is in the laser beam at any moment, and then light scattering measurements are made on each transiting particle. So Wyatt discloses measurements of individual particles of a

substance, but does not require a magnified image of the substance to do so.

Additionally, the scattered light measurements as taught in Wyatt do not result in a magnified image of the substance. Instead, as disclosed in Wyatt, Col. 11, line 30 to Col. 12, line 19, scattered light measurements result in a set of intensity values of light scattered by the passage of the particles through a light beam. An analysis of these intensity values (not of a magnified image) is used to classify and/or identify the target aerosol particles in Wyatt. Therefore, Wyatt does not teach or suggest providing a corresponding report comprising a magnified image of the substance as recited in Claim 3, and is therefore allowable over the prior art.

#### ***Claim 8***

Claim 8 discloses that the “image of the substance is a microscope-magnified image,” and is allowable in view of the arguments above regarding Claim 3. Furthermore, Wyatt does not disclose a microscope or an image of the substance magnified by a microscope.

#### ***Claim 10***

Claim 10 discloses the remote sensing units deployed at a distance by an airdrop, balloon, or robot. On page 9 of the Office Action, the Examiner rejects claim 10, citing Col 3, lines 36-40 of Wyatt. This passage describes prior art in which airborne vehicles are equipped with instrumentation for detecting dangerous chemicals or particles. However, this instrumentation is not deployed by an **airdrop**, balloon, or robot. Rather, the cited passage of Wyatt describes instrumentation which remains on the airborne vehicle. However, to further distinguish claim 10 from the prior art, it has been amended to recite “...wherein the remote sensing units are deployed by being airdropped into an area containing a potentially hazardous substance.” Support for this amendment can be found on page 26, lines 18-30 of the present application.

***Claim 11***

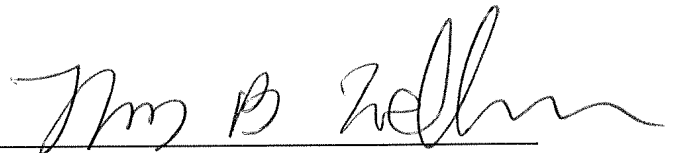
Claim 11 is hereby added, and is not disclosed in the cited prior art. Specifically, claim 11 recites, "wherein the remote sensing units act to properly orient themselves upon hitting ground." Support for this claim can be found on page 26, lines 30-32 of the present application.

**Conclusion**

For at least the reasons set forth above, applicant respectfully submits that claims 1–4 and 6–11 are in allowable condition and requests a Notice of Allowance. In the event of further questions, the Examiner is urged to call the undersigned. Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 19-0522.

Respectfully submitted,  
HOVEY WILLIAMS LLP

BY: \_\_\_\_\_



Thomas B. Luebbering, Reg No. 37,874  
10801 Mastin Boulevard Suite 1000  
Overland Park, Kansas 66210  
(913) 647-9050

ATTORNEYS FOR APPLICANT(S)